PHILADELPHIA, NOVEMBER 10, 1877.

ORIGINAL COMMUNICATIONS.

A SURGICAL ENGINE.

BY JAMES E. GARRETSON, M.D.

DELICACY combined with speed of performance being of primary importance in operative surgery, any invention tending to secure this desideratum must necessarily be possessed of much interest both to practitioner and to patient.

The object of this paper is to illustrate the capabilities of an engine which the writer has had in use in his practice for some time back, and which is found to respond so entirely to its requirements as to merit an unqualified commendation. It is a time-, shock-, and pain-saving instrument, and is possessed of so many recommendatory virtues that only a very short period can elapse before it will be met with in every operating amphitheatre, if not also in the private office of every surgeon.

The form and general construction of the engine are exhibited in Fig. 1. The surgical virtue lies in the arm hanging from the top to the left. In character the instrument resembles the ordinary pedal lathe. It has a fly-wheel, a driving-pulley, and the associate cord. The object of the power is to secure revolving velocity.

The upright of the engine differs, however, from the common pedal lathe in being hinged at its centre; rocking motion can be effected to any extent.

The arm is movable in every direction, being composed of a flexible wire shaft and a flexible sheath. The extremity of the arm is a mandrel. The capability of this arm to respond in its motions to the slightest impulse of an operator's finger, even while the instrument held by it is being whirled one or two thousand times in a minute, is little less than wonderful. A pen is not more completely under control than is here a revolving saw or knife,—a capability which has called forth the expression from one well versed in mechanics that for simplicity, ease in movement, and adaptation to its ends the machine exceeds anything ever seen by him.

The mandrel, or carrier, together with the terminal or associate end of one of the instruments—a rose drill—used with it, is shown in Fig. 2. Whatever is fixed into this carrier will revolve with it.

Fig. 1.

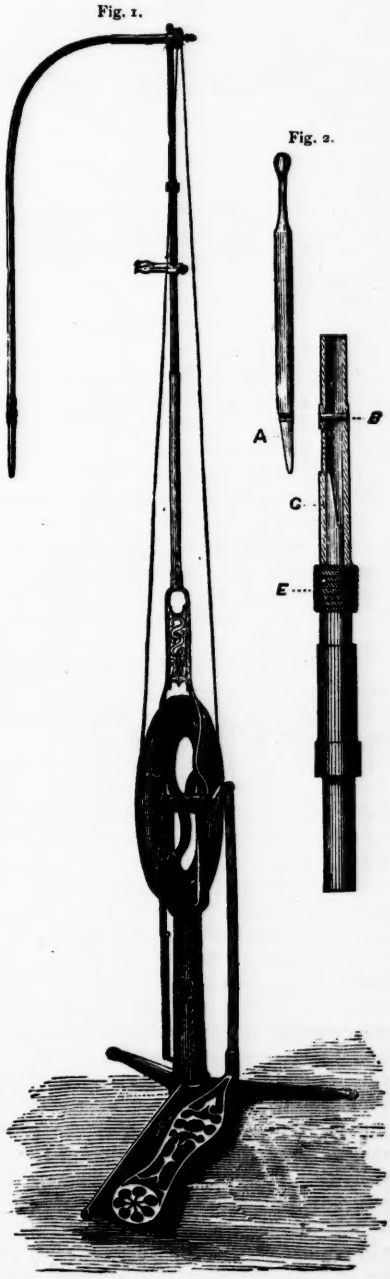


Fig. 2.

Fig. 3 exhibits a modification of the mandrel, which admits of the employment

of an instrument at any desired angle. Still another modification is shown in Fig. 4, together with what may represent a circular saw fixed to its place and ready for service. In these illustrations the mandrels are shown covered by what is known as the hand-piece.

Fig. 3.

Fig. 4.

To operate through the aid of this engine, all that is necessary is to place the instrument to be used in the grasp of the carrier, as shown in Figs. 3 and 4, and, putting on the power by means of the treadle worked by the foot, direct the instrument after the manner of a pen carried by its holder.

After this limited but all-sufficient description of the engine, attention may be directed to a few cases illustrative of its application to surgical purposes.

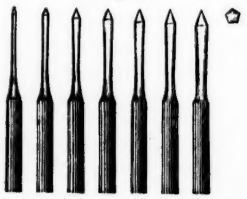
1. Being an invention in dentistry proper, the present common use of the machine is the preparation of the cavities of carious teeth preliminary to the process known as filling.

When dental caries extends to close proximity with the pulp of a tooth, the necessity for the slightest possible touch is paramount; the difference of a hair's breadth is oftentimes all-important to prevent the exposure of that organ. In the majority of instances, such manipulation has to be accomplished unaided by the sense of sight. The engine works with such absolute certainty that the requirements are met without effort or concern on the part of him who directs and controls the lightning-like speed of the point that cuts.

2. The Removal of Teeth.—It not unfrequently occurs that teeth require to be extracted where the relation with a dense alveolar process so nearly approaches the character of a true anchylosis that the force required to break the connection is beyond the ability of the operator to exert or the strength of the jaw of the patient to withstand. Cases of this kind afford signal triumph to this engine: through its aid the writer has succeeded, after a moment of almost painless manipulation, in removing with the greatest possible ease teeth which could not have been extracted after the ordinary manner.

To remove a tooth, using the engine, one of the five-sided bits, preferably the smallest, shown in Fig. 5, is placed in the carrier, and, while held closely against the organ to be removed, is revolved until it cuts its way between tooth and socket: this done, the finger forceps not unfrequently suffices to lift the organ from its alveolus. The drill is to possess three or five sharp sides, continued its whole length: thus provided, it cuts from point to base, as the operator carries it around the tooth.

Fig. 5.



3. Treatment of an Absorbing Alveolar Process.—Loosening of the teeth arising out of absorption of their alveoli is a condition met admirably through the aid of the engine. Generally it is found that the origin of the bone disease, as well as the falling away from the neck of the tooth of the gum, has explanation in the presence of common tartar. The indications in such cases are twofold: 1st, to remove all calculus; 2d, to freshen the circular edge of the absorbing bone.

To accomplish the first of these indications, sugar-loaf drills, as portrayed in Fig. 6, are to be used, —the smaller the better. One of these being placed in the mandrel is carried, while in rapid revolution, around the neck and root of the tooth; the scaling effected by it is very complete, while at the same time just enough abrasion is produced in the surrounding soft parts to

Fig. 6.

excite the required reaction, which shall change to a healthy surface a suppurating one.

To accomplish the second of the indications, namely, the freshening of the bone, the writer employs the rose drill shown in Fig. 7,—smaller, however, than the smallest of these. Resting a drill of this kind against the diseased bone, the circumference is easily removed by means of the slightest pressure made on the revolving instrument. It may not be amiss to allude to the necessity for washing away the detritus by means of a syringe.

Through such double operation the writer has found himself able to restore many loose teeth to a fair degree of health. True, the same ends are to be reached by other means; but no instruments so easily, readily, and painlessly accomplish the work as those here suggested.

From the manipulations practised in dentistry proper—of which there are a great many—the writer has carried the use of the engine into the domain of oral surgery.

4. Treatment of Caries of Bone.—A glance at Fig. 7 will make plain to the surgeon the usefulness of the instrument in the treatment of osseous caries. As operations on the maxillæ are concerned, the help afforded by it is simply invaluable. By its aid the surgeon feels himself able to do almost anything, and to do what is to be done without effort to himself and with the minimum of discomfort to the patient. On a number of occasions the writer has performed what were really quite extensive operations, while the patient, without an anæsthetic of any kind, was unconscious that the removal of bone was being effected. Extreme as is the assertion in seeming, it is really the case that a whole diseased jaw can be cut from its bed without any particular evidence being afforded to the bystander that an operation of consequence is in progress. A sinus big enough to admit a rose drill is all the external wound required. The pain connected with this means of operating can only be trifling. It is the very nervous alone that think ether necessary.

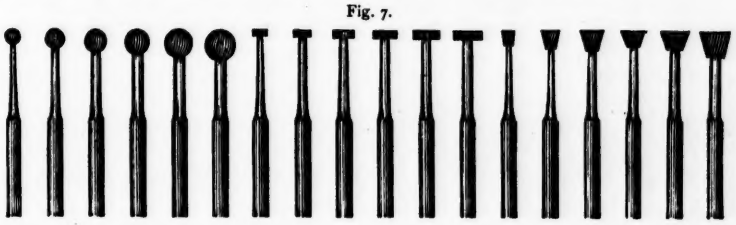
The rose drills used in the operation are to be obtained of all sizes. Those shown in the cut are well adapted to the work.

5. Trephining.—A trephine revolved by this mandrel moves with such absolute accuracy that accident is impossible; the directing of it is as easy of accomplishment as is the guiding of a pen. Not more than a second is required to enter the antrum or to get out of it at the maxillary tuberosity.

6. Exposing the Inferior Maxillary Nerve.—For uncovering the nerve by removing the roof of the canal the manner of operating described below in which the engine is employed surpasses any other with which the writer is familiar. The ease and nicety of manipulation so commend the instrument that when once it has been used the performance would scarcely be re-attempted without its assistance.

Fig. 8.

Fig. 7.



Description of Operation.—Two indications are assumed to be paramount: 1, to operate without a resulting scar on the face; 2, to make such manner of exposure of the nerve that it may be fully and fairly examined before being lifted. To these two may be added a third,—namely, the cutting away of the bone in such manner as will justify the surgeon in acting on the conclusion that there will be no resulting suppuration.

Indication first is successfully met by drawing up the shade-line from beneath the base of the face, and, with the facial artery protected by a finger-nail placed just in front of it, making an incision one and a half inches in length down to and along the jaw. The incision made, the wound is opened, and the roof of the canal exposed, as shown in the cut.

Indication two is met as also shown in the cut. First, a small trephine—the circular cuts made by it are seen in the diagram—is used at either extremity of the proposed length of exposure. After this the two are connected by saw cuts carried above and below along the length of the canal. These manipulations accomplished, the roof is lifted, and the nerve and artery are seen lying undisturbed in their bed.

Fig. 9.

A nerve so exposed enables the operator to verify the truth of, or to satisfy himself of an error in, a diagnosis: besides, it gives a ratio of success, where local lesion exists, far greater than the general manner of operation. The writer is confident that the advantages of this method of uncovering the nerve need the commendation of but a single trial to make evident its superiority over all other modes. The diagram sufficiently explains the steps, without need for further written illustration.

7. Resection of Lower Jaw.—Fig. 10 shows the engine used in a resection of the inferior maxilla. The operation in such manner of case is accomplished with great rapidity and without the cost of any effort to the surgeon. The writer has found himself able to accomplish in this direction in a few minutes what with the Hey's saw would have cost the greatest part of an hour's most trying work. The illustration

Fig. 10.

suffices to exhibit the application of the instrument.

8. Operations in Epulic Growths.—As the instances are rare in which the removal of bone is not indicated in treatment of the epulides, the engine, together with its circular saws and rose drills, offers an easy and expeditious means of operating, which, it seems to the writer, must necessarily command, sooner or later, a general employment.

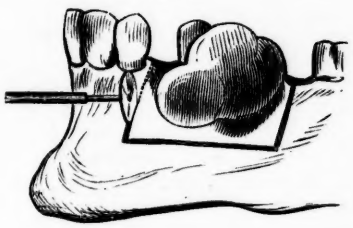
In the smaller epulic growths experience has demonstrated the inexcusable impropriety of a section that breaks the line of continuity at the base of the jaw; such section certainly is not necessary in more than one out of every fifty cases. Fig. 11 exhibits a specimen of what is meant by "the smaller growths." Such tumors, while assuredly they demand removal of bone, are to be ablated, as shown in Fig. 12.

Fig. 11.

In the performance of ablation, as exhibited in the diagram (Fig. 12), it has been a custom with the writer to employ, in common with all other surgeons, the

straight and cross-cutting forceps. These instruments allow of undeniably rapid accomplishment in operation, but serious objections to their use lie in the facts—1st, of an inability to cut the jaw-bone proper, only the alveolar process being capable of such manner of removal; 2d, in the cut made with the vertically-used forceps there is always more or less danger of fracturing the jaw; and 3d, cuts made with forceps are apt to inflict a damage which it requires much suppurative action to get clear of.

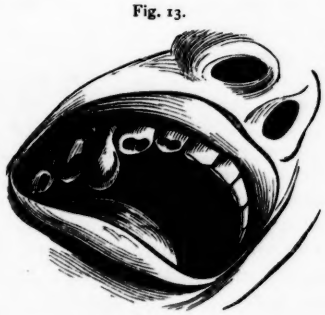
Fig. 12.



In the employment of the circular saw in this direction it is only necessary to incise the soft parts in the lines of the cuts to be made. If the size of the morbid growth demand such extent of operation, the saw can be run both vertically and transversely to within a line of the base of the jaw without the slightest danger of fracture, and, because of the delicacy with which the cutting is done, with almost as little danger of a resulting necrosis of the frail but most important septum which has been left, and upon which depends entirely the preservation of the contour of the lower part of the face.

The use of the rose drill is often resorted to in these cases by the writer. Very small

Fig. 13.



growths (Fig. 13 serves as an illustration) require no other means. Cutting off the soft parts of the tumor, a few thousand revolutions of the drill will remove the involved bone with the greatest thoroughness. Indeed, not only the minor, but the major cases also are amenable to this method of radical extirpation.

The mode of using the engine in these cases will be understood by reference to Fig. 12 and to the operations for caries and in resection.

9. Treatment of Ununited Fractures by Wiring.—The drills exhibited in Fig. 5 are so admirably adapted to the perforation of bone, and the revolving power of the engine is so great, that making a hole through the maxilla is the work of scarcely a second of time. Besides the ease in the accomplishment of the object, there is nothing of that inconvenience which associates with the use of a bow drill, neither is there the slightest danger of whirling into the flesh the drill that is making the hole in the bone.

The few illustrations offered are deemed quite sufficient to exhibit the capabilities of the engine. The applicability of the means to a great variety of operations in surgery at large will strike the general practitioner. With an increase of power, which, it would appear, may be readily given the machine, it would seem to offer advantages in the treatment of the carious stage of hip-joint disease not possessed by other means. In place of turning out the head of the femur, nothing would be easier than to cut it into raspings by means of a long-stemmed raspatory; a syringe completing the operation by washing away the fragments. The common sinus would afford the required room for introduction both of bit and syringe-nozzle.

Caries of the acetabular cavity demanding operation would find a most reliable means of treatment in the revolving rose drill: accident would be impossible, while extirpation of the diseased bone would be a certainty.

Trephining.—With a sufficiency of revolving power the trephining of the cranial vault by means of this engine would certainly be the perfection of an operation. A child could accomplish it without danger of injury to the dura mater. To get to the meninges would be but the work of a few seconds, while the manipulation could be practised, if necessary, on a floating bone.

To Replace the Gouge.—In whatever

operation a gouge is indicated the rose drill is adapted to take its place.

AMPUTATIONS.—The ease with which a separation of continuity in bone is effected by means of the common saw seems scarcely to leave room for improvement. Cases, however, may readily be supposed where such requirements as associate with the use of this engine would enable it to afford valuable assistance.

APPLICATION TO LITHOTRITY.—It would seem to require but little inventive genius to connect this engine with the lithotrite in such a manner that while a stone in the bladder should be firmly held a spear-headed revolving drill should cut it to pieces, or at least so weaken it as to allow of an easy crushing by the blades of the instrument.

STRICTURES.—The perforation of a stricture by means of a properly constructed bevel-head revolving within a cylindrical bougie will suggest itself.

NÆVI.—The tearing into pieces, subcutaneously, of the spongy mass of erectile nævi is a very feasible operation.

CATARACT.—The engine affords a means for the drilling and breaking up of cataract in young children, which is not to be equalled in delicacy of manipulation by any human fingers, however practised and experienced. The needle could be entered with equal certainty whether at rest or in rapid rotation.

As in the practice of the writer some new use is found for the engine almost daily, it is to be supposed that its introduction into hospitals and clinics will extend very widely the range of its employment. Considered alone as a shock- and pain-saving instrument, it not only merits but also commands an earnest scrutiny on the part of every operating surgeon.

ON THE ARTICLES OF DR. C. G. POLK UPON GLYCERITE OF KEPHALINE.

BY SAMUEL R. PERCY, M.D.

IN the *Philadelphia Medical Times* for September 29 there is a communication from Dr. C. G. Polk on "Protagon;" in the *Virginia Medical Monthly* for October there is a communication from the same author on "Glycerite of Kephaline;" and in the *Druggists' Circular* for October there is also an article on "Glycerite of Kephaline."

It had not been my intention to take any notice of what Dr. C. G. Polk might say; but when respectable journals, such as those I have above quoted, admit his ignorance and personal attacks upon myself to appear in their columns as scientific chemistry and valuable discoveries, I do not feel that it is right to let it pass in silence. When he and his associates confine their communications to their own Eclectic journals, I have no fault to find: they properly belong there.

Dr. C. G. Polk says, in one place, "I employ the name glycerite of kephaline to designate a solution of brain hypophosphites in glycerine acidulated with hypophosphorous acid."

In another place he says, "I make the solution represent the following formula: cerebrate of ammonium, potassium, calcium, sodium, magnesium, glycero-hypophosphorous acid, cerebric acid, and pure glycerine."

In another journal he says, "I may here state that the glycerite of kephaline is a saturated solution of cerebric acid, cerebrate of nitrogen, and cerebrate of sodium, in chemically pure glycerine." "Cerebric acid may be obtained after Frémy's method."

In another journal he says, "The phosphoids of the brain are cerebric acid, cerebrate of sodium, the cerebrate of calcium, and the cerebrate of ammonium. These, with an albuminoid body, constitute the kephaline."

Thus we have four formulas, all of them differing in a very great degree and containing different substances, by which his "glycerite of kephaline" is made. In his previous paper, and in his circular to the public, he gives us to understand that his protagon and glycerite of kephaline are the same thing. "While I have used it since 1858, and one year longer than the preparation I called in my note-book 'Kephaline,' but now known as 'Protagon.'" "The phosphoids of the brain are cerebric acid, cerebrate of sodium, calcium, and ammonium," that is, cerebric acid combined with alkalies and formed into salts. By Frémy's analysis, which he quotes as his formula for making cerebric acid (which dates back to 1841), there is but 0.9 per cent. of phosphorus in cerebric acid, and that is entirely due to the little myeline contaminating it. Von Bibra's analysis of a later date gives but

0.52 per cent. of phosphorus in cerebric acid. Muller in 1858 reviews these analyses, and says, after careful investigations, that cerebric acid is not an acid, but a neutral nitrogenous body. "The reasons adduced by Frémy will not suffice to prove this body to be a well-characterized acid: on the contrary, its chemical behavior proves that it belongs to the class of neutral nitrogenous bodies. Moreover, Frémy dealt with an impure substance." Kohler, Otto, and Liebig have since confirmed this. All late investigators deny the existence of cerebric acid, and Thudichum, the latest and most perfect, states that "cerebrin" contains no phosphorus, but is a nitrogenous body. Thudichum says, "Cerebrin has the affinity for water to the extent of swelling to gelatinous masses, but it does not go into a state of solution, and does not pass paper filters under any pressure; while the compounds with salts, oxides, and acids are so unstable as not to admit at present of quantitative definition." Thus it appears by many authors that Polk's "cerebrates" or "brain phosphates" have no existence; that Frémy's impure "cerebric acid" contains but a mere trifle, less than one per cent., of phosphorus, and that Polk's asserted addition of "cerebric acid as its solvent" is the most laughable chemical nonsense of the day, and makes it evident that all Polk's formulas are but the emanations of his imagination. In the very same article he says in one place, "I employ the name glycerite of kephaline to designate a solution of cerebrates or *brain* hypophosphites;" in another place, "the glycerite of kephaline does not contain the phosphates and phosphites of the brain." He says, "So soluble are these cerebrates that they will dissolve in nearly their own weight of glycerine." If any chemist will take the trouble to make some "cerebric acid" according to Frémy's formula," he will find that it is insoluble in glycerine.

Polk directs to take of his compound "ten drops in water."

Frémy says, "It is insoluble in water, only swelling up to a viscous mass."

Late authors upon the analysis of the brain divide the brain-principles into two groups, the phosphorized and nitrogenous principles. The phosphoid principles are kephalines, myelines, and lecithines; the nitrogenous principles, cerebrines, phrenosines, and kerasines. Polk, better informed than all modern scientists, says that "the phosphates of the brain are cerebric acid, cerebrate of sodium, calcium, and ammonium. These, with an albuminoid body, constitute kephaline." We have before proved that cerebric acid does not exist: therefore the cerebrate of sodium, etc., certainly has no existence, and Polk, by his own showing, *creates* phosphoids out of substances possessing no phosphorus.

Again he says, "The hypophosphites belong to two classes: monobasic hypophosphites formed from vitreous phosphorus, and tribasic hypophosphites isolated from vegetable and animal organisms." It has been demonstrated by all chemists that a monobasic hypophosphite cannot exist,—that three equivalents of base are essential to its composition, whether derived from an animal, a vegetable, or vitreous phosphorus. But facts are of no account: Polk creates.

In Frémy's analysis of cerebric acid, and in all his analyses of brain-matter, he never professes to have discovered a particle of hypophosphorous acid; but Polk, who uses Frémy's method, professes by it to have discovered that the phosphoids of the brain are hypophosphites; this he announces in his first written article on the subject in the *Druggists' Circular*, March, 1875, and no impartial person who will read this article will deny that it is wholly plagiarized from "Percy's Essay on Phosphorus," printed in 1872.

To sum up, then, we find:

1st. "To Liebreich the credit is usually accorded of having first isolated protagon from the brain (1864). My own researches antedate his."

2d. He used the hypophosphites before Churchill's discoveries of their value in medicine was published, and poor, ignorant Churchill used only the monobasic, while he used the tribasic varieties.

3d. He made "cerebric acid" according to Frémy's formula, and by the addition of soda and lime to it he made cerebrates, and out of the cerebrates, which contain no phosphorus, he made the hypophosphites of the brain.

4th. In 1876 he claims to have discovered ("before Percy") that the phosphoids of the brain and nervous system were hypophosphites, and he gives as proof that he has not been stealing from Percy

that he has used them since May, 1859, and that one of his friends, under his direction, used "glycerite of kephaline" in 1872. Thudichum, in 1874, says that he "has now described kephaline for the first time."

5th. He creates substances that do not exist. From "cerebric acid," which is a mixture of cerebrine, phrenosine, kerasine, the nitrogenized principles of the brain, and all devoid of phosphorus, he makes "glycerite of kephaline, or brain hypophosphites."

What a modest discoverer we unknowingly have among us! Churchill, Liebreich, Koehler, Otto, Liebig, Percy, Thudichum, must all yield their discoveries to him, because long after their publications were widely disseminated in print, he claims to have made their discoveries for them.

But seriously, Mr. Editor, *you* are unwittingly responsible for this disagreeable necessity of correcting this jargon of bad chemistry.* As I have been long known on the subject of phosphorus, it might appear to those who do not know me that I have a personal feeling in the matter. I *have* the feeling that the profession should always have pure medicines to use. "Dr. C. G. Polk, Professor of Surgery in the Eclectic Medical College of Pennsylvania, Medical Department of the American University of Philadelphia," should be well known to editors of respectable journals. Our code of ethics makes some distinction between that institution and the one to which we belong.

47 West Thirty-Eighth St., New York.

NOTES OF HOSPITAL PRACTICE.

HOSPITAL OF THE UNIVERSITY OF PENNSYLVANIA.

SERVICE OF PROF. AGNEW.

Reported by H. R. Wharton, M.D.

POPLITEAL ANEURISM, LIGATION OF FEMORAL ARTERY, PROFUNDA FEMORIS, COMMON FEMORAL, OBTURATOR, EXTERNAL ILIAC, AND COMMON ILIAC; DEATH FROM SECONDARY HEMORRHAGE.

MAY 3.—George G. presented himself at the University Hospital with a large aneurism, situated in the left popliteal space, and which measured in its largest circumference over the patella twenty-one inches, the sound limb measuring at the same point fourteen inches; it extended from the lower border of the popliteal space to the lower third of the thigh.

He states that he first noticed the tumor coming on after a sprain of the left knee, which occurred more than four years ago; since that time it has gradually increased in size, and has been accompanied with the most severe pain.

The patient was kept in bed, with the affected limb elevated, and given tinct. aconiti gtt. iij with potassii iodidi gr. v every six hours.

May 7.—Esmarch's bandage applied to limb for one hour caused great pain, and was followed by no change in the tumor.

Digital compression was commenced on femoral artery, which entirely controlled pulsation in the tumor, and was continued for twenty hours, but had to be given up, as the patient was much exhausted and his stomach became very irritable. No perceptible change could be noticed in tumor after this operation. It was now decided to tie the femoral artery as soon as the patient should be in condition.

May 12.—The patient being in good condition, the femoral artery was ligated at the apex of Scarpa's triangle with a double catgut ligature, and the wound closed. Pulsation in aneurism entirely controlled; limb enveloped in cotton, and temperature of affected limb found to be higher than that of the sound limb.

May 13.—Patient doing well; temperature of limb almost normal; complains of great pain in tumor, which is relieved by the free use of morphia.

May 14.—Has less pain; rested well; wound looks healthy; tumor becoming firmer, now measures nineteen and a half inches.

May 21.—Patient has done remarkably well until this morning, when blood was noticed flowing from the wound. This was controlled by pressure on femoral artery.

The wound was opened, clots removed, and the hemorrhage was found to have come from an ulceration in the coats of the vessel, a short distance above the ligature, which was in position; no clot had formed in the vessel. The vessel was now tied above and below the ulcer, and the wound closed.

May 22.—Patient has reacted well, takes nourishment freely; given iron and quinine.

* We accept the responsibility with pleasure. Dr. Polk's articles have been appearing in medical journals of standing for several years, and it is time some one did for them what Dr. Percy has done. It is hardly necessary to say we were ignorant of the professional standing of Dr. Polk.

May 25.—Patient's strength improving; wound filled with healthy granulations.

May 28.—Passed a restless night; this morning his temperature is elevated and his pulse quickened.

About eleven o'clock profuse hemorrhage started from the wound, which was controlled by pressure on the femoral; the wound was opened and clots removed. The bleeding was found to come from an ulceration in the coats of the profunda femoris: this vessel was tied above and below the seat of hemorrhage.

May 29.—Patient reacted well after hemorrhage, taking nourishment freely.

June 4.—Patient in good condition; wound looks well; aneurism diminishing in size, now measures seventeen and a half inches.

June 11.—This morning hemorrhage suddenly started from the wound; it was controlled by a compress, but on its removal the blood flowed so profusely that it was impossible to secure the bleeding-point in the wound, as pressure on the common femoral almost controlled this. The vessel was ligated just above the origin of the profunda femoris; after securing this ligature the bleeding-point was tied in the wound. The hemorrhage in this case appeared to come from an enlarged vessel between the femoral and obturator. Patient much exhausted after the hemorrhage; given stimulants freely; reacted slowly.

June 15.—Patient's condition again improving; takes nourishment well; wound looks healthy; aneurismal sac firmer; has less pain in affected limb.

June 22.—Ligature from common femoral came away; wound looks well.

June 23.—Patient this morning is restless, complains of pain in his bowels and itching in the wounds; temperature elevated. During the afternoon profuse hemorrhage started from the wound at the point where the ligature came away from the common femoral; bleeding controlled by pressure on the wound. Dr. Agnew now tied the external iliac artery, using the double catgut ligature, and closing the wound; hemorrhage entirely controlled. Patient reacted quickly, having lost little blood; temperature of limb on affected side higher than sound limb.

June 24.—Patient restless, and complains of great pain in the tumor; given morphia freely. About ten o'clock in the evening, profuse hemorrhage started from the upper wound in which common femoral was tied; this was controlled by pressure in the wound, and after much difficulty the bleeding-point was secured by a ligature, with the aid of Horner's awl. The hemorrhage in this case appeared to come from obturator. Patient, having lost a considerable amount of blood, reacted slowly.

June 26.—Improving in strength; takes his nourishment well; wounds look healthy; aneurismal sac contracting; still has considerable pain in limb.

June 27.—This evening hemorrhage started from obturator where ligature was last applied; controlled by pressure on the wound, as the bleeding vessel could not be secured in the wound on account of the violence of the hemorrhage. Dr. C. T. Hunter tied the common iliac, which entirely controlled the bleeding; the wound was closed, and the limb was enveloped in cotton. Patient reacted slowly; given nourishment and stimulants in small quantities; temperature of limb good, except at foot.

June 28.—Patient has entirely reacted; temperature of entire limb a little higher than normal; takes his nourishment well.

July 2.—Patient passed a restless night. At 8.30 this morning hemorrhage started from wound in which obturator was tied; controlled by pressure on the wound, and the bleeding-point secured after much difficulty. Reacted well after operation.

July 3.—Patient has been quite restless and delirious to-day, but has taken nourishment well. At 8.30 this evening the nurse noticed blood flowing from wound in which iliacs were tied; the abdominal tourniquet was applied, which arrested further hemorrhage, but the patient was much exhausted, and gradually sank, and died in about an hour.

Post-mortem Examination, twelve hours after death.—On examining the iliac artery the ligature on the external iliac was found in place; the ligature on the common iliac was also found in position, about half an inch above its bifurcation. There was a clot in the common iliac above the ligature for a distance of one and a quarter inches. About three-fourths of an inch above the ligature there was found a perforating ulcer in the wall of the vessel, about three lines in diameter, and from which the hemorrhage had come. A pipe

was then put in the left common iliac and the ligature was removed from the obturator. Now upon injecting fluid it freely escaped from the obturator, showing that the left obturator artery was supplied by anastomosing branches between the right and left internal iliac. Upon exposing the aneurismal sac the popliteal nerve was found stretched over the sac. Upon opening the sac its walls were found thickened with organized clots,—it contained broken-down and organized clots. The posterior surface of the femur about and a short distance above the condyles was denuded of periosteum from pressure of the tumor.

It should be noted in this case that the patient had, some ten years before, suffered from constitutional syphilis.

Much credit is due, in connection with the general conduct of the case, to Messrs. Scott, Beatis, and Gillespie, members of the medical class, who watched the patient at night during his entire sickness.

TRANSLATIONS.

SUDDEN DEATH FOLLOWING THE USE OF SALICYLIC ACID.—Dr. Empis (*Bull. Gén. de Thérap.*, v. 2, 1877, p. 25) gives notes of a case of acute articular rheumatism, in which, after trying quinine, purgation, etc., unsuccessfully, he ordered salicylic acid in ten-grain doses, administered in *cachets de pain* every two hours. Within twenty-four hours a decided change for the better had taken place in the patient's condition; the joints were less painful, and the limbs could be moved. The patient, however, complained of deafness and continual tinnitus aurium. The fever had gone, but he perspired excessively and was quite weak. A very slight systolic murmur could still be heard over the heart. Seven grains of salicylic acid every second hour were prescribed. On the third day all treatment was suspended, and the success of the salicylic acid treatment was remarkable. After a restless night, however, the patient took a small quantity of soup, which he had scarcely swallowed before he complained of violent pain in the stomach, and a few moments later fell back on his pillow unconscious.

His limbs moved convulsively for a few seconds as in eclampsia, his respiration became stertorous, inspirations followed at longer and longer intervals, finally the heart ceased to beat, and the patient was dead. M. Empis is very positive in asserting salicylic acid (or metastasis!) as the cause of death. As, however, no medicine had been taken for nearly twenty-four hours, and as no post-mortem examination is noted, some doubt appears to obtain as to the real cause of death. X.

ANEURISM OF THE ARCH OF THE AORTA TREATED BY ELECTRO-PUNCTURE.—Dujardin-Beaumetz (*Bull. Gén. de Thérap.*, v. 11, 1877, c. 1) gives a very full description of this method of procedure, illustrated by a case in which electro-puncture was performed with a partial result, which he hopes to make complete at further sittings.

The conclusions which Beaumetz draws from the observation are as follows:

1. Electrolysis is a rational method of treating aneurism of the aorta.

2. This method should be resorted to when other methods have failed to give relief.

3. Applied with the necessary precautions and following the indications and counter-indications formulated by Ciniselli, this method is never accompanied by immediate severe accidents.

4. Electro-puncture has ameliorated aneurisms of the aorta to a notable degree in nearly two-thirds of the cases. X.

MEDICINAL RASHES.—Several communications have recently been made to the *Berliner Klinische Wochenschrift* on the subject of eruptions induced by the ingestion of various medicines. The first and most lengthy of these is by Dr. Köbner, in Nos. 22 and 23 of the journal mentioned. Under the designation "medicinal exanthemata" he includes all those eruptions which are produced by actual absorption of medicines, whether by the stomach or intestine, from hypodermic injections or from inhalations; eruptions which appear quickly and are rapidly cured. These are to be distinguished—1, from those eruptions brought about by the direct application of medicines to the cutaneous surface; 2, from eruptions which, though arising from absorption of medicines, yet appear gradually and are accompanied by actual pathological (hypertrophic or atrophic) changes.* Well-authenticated cases of the

* Such, for example, is the case of alopecia areata which was observed by Wyss (*Arch. f. Heilk.*, 1870, p. 395), and which he considers the result of a prolonged course of arsenic. This was more probably the result of the nervous disturbance for which the arsenic was given. Haeberle's case of multiplied wart formation on the face following the use of bromide of potassium probably belongs to the same category.

atrophic variety are wanting. True medicinal rashes are usually of an inflammatory nature, frequently mere hyperæmiæ: they are rarely hemorrhages. The former appear, according to their location, as urticaria, roseola, or erythemata of various kinds. Occasionally they assume the form of acne or even furuncular inflammations; very seldom they assume the phlyctenous (vesicles or pomphæ) or the papular eczematous form. Only in exceedingly rare instances is atonic ulceration or gangrene of the skin observed.

Medicinal rashes are either confined to some single locality or are generally distributed over the body. The latter variety may be divided into two classes. The first of these begin in a given locality, and gradually spread. They are not accompanied by fever. In order that rashes of this form should spread extensively, the medicine must have been taken for a considerable period. To this class belong eruptions brought on by the haloid salts, particularly bromide of potassium. The second class of eruptions appear suddenly, sometimes after a single dose of the agent, occasionally even when this has been very small. Rashes of this class are only rarely the effect of cumulative influences. They are accompanied by fever, general disturbance of the system, with frequent involvement of some of the mucous membranes, particularly of the upper digestive passages. These symptoms mark such cases as intoxications, and the acuity of these eruptions, as well as their simultaneous appearance on all parts of the body, causes them to resemble closely the acute exanthemata. Two diagnostic points distinguish artificial eruptions of this class: 1, decrease of the eruption when the medicine is stopped, with return following its repetition; and, 2, chemical proof of the presence of the medicine in one of the physiological secretions, usually the urine. A third point may be mentioned as occasionally available, —namely, the different grouping of the medicinal rash as compared to the eruption likely to be mistaken for it. Of course the history of the case is to be considered also.

In illustration of the difficulty occasionally arising in the diagnosis of these rashes, Köbner gives full notes of a case of quinine eruption which was mistaken for scarlatina, and alludes to Bernouilli's case of "exanthema scarlatinoides recidivum" as probably similar. In No. 23 of the same journal Heusinger gives notes of a similar quinine exanthem, and Apolaris another case where an urticaria-like eruption followed the use of morphia. Köbner and Heusinger's cases are of great interest, and the former especially is related with great minuteness of detail. x.

Elimination of Mercury under the Influence of Sulphurous Mineral Waters.—It has been frequently asserted that syphilitic patients who have been free from any symptom of the disease for a longer or shorter period suffer, occasionally, a relapse after taking a course of the sulphurous waters of Aix-la-Chapelle. Dr. J. Edmund Güntz, of Dresden, has recently made some interesting observations on this subject (*Vierteljahresschrift f. Derm. u. Syph.*, 1876, p. 297). The urine of syphilitic patients, in whom all symptoms of the affection had disappeared, and who had taken no mercury for some time previous, was examined for this drug, but always with a negative result. After having ingested 1200 cm. of the "Kaiserquelle" water daily for some days, and also having bathed daily in the same, mercury reappeared and was detected in the urine. At the same time syphilitic manifestations on the skin began to show themselves. Güntz does not admit the mere removal of the mercury to be the cause of the reappearance of syphilitic manifestations. He maintains, however, that there is some connection between the two. The increased secretion of urea observed during the administration of sulphurous waters indicates an increased metamorphosis of albumen. The syphilitic products which appear, are, however, formed at the expense of the disintegrating albumen. Normal metamorphosis of tissue is characterized by continual disintegration of albumen. Pathological syphilitic tissue-change manifests itself by *increased* albuminous disintegration, proved by augmented excretion of urea.

Regarding the therapeutic indications to be gathered from Güntz's observations, he says that where mercurialism begins to show itself we can safely intermit the medicine, knowing that several weeks will elapse before its effect is exhausted. The inunction treatment for interrupted periods, with the simultaneous internal administration of minute doses of mercury, forms, according to Güntz, the best treatment of syphilis. x.

PHILADELPHIA
MEDICAL TIMES.

PHILADELPHIA, NOVEMBER 10, 1877.

EDITORIAL.

TURKISH MEDICAL SERVICE.

THE portrayal of the state of medical science in Turkey, which we recently laid before our readers, had prepared us to believe almost anything in regard to the medical service of the Turkish army; but in diabolical coolness of decision, certain official measures, which now appear to be thoroughly established as practised in the Turkish army, exceed anything we have conceived of.

The medical staff is so inadequate in numbers and quality that it may be said not to exist, and the condition of the sick and wounded in many places, practically, to be that of abandonment. Scurvy, fevers, dysentery, gunshot wounds, vie with one another in the race of destruction, unchecked and uncombated. Where there is a doctor, there is usually an ignoramus; and where there is not an ignoramus, there are no supplies: *par exemple*, in a recent exchange we read of the "usual method of Turkish amputation,"—namely, a circular incision to the bone, followed by the saw; and of a doctor who displayed with great éclat the novelty he had invented of cutting the skin below the point of division of the bone and dissecting it up so as to get covering for the latter; also of a doctor, alone at an important post and unembarrassed by medicines or dressings, who was removed because he had finally telegraphed back to his superiors that he was not a magician, who could cure the sick and wounded without medicine or material. Again correspondence from the Turkish front is overflowing with accounts of incidents like that which is recorded by Dr. Stoker as occurring near Shipka Pass, six thousand wounded and only four surgeons in attendance, or as happened some time after the affair at Keril-tepi, when three hundred and seventy wounded were transferred to a khan at Kars, and left three days not only without medical aid but absolutely without food.

A number of English surgeons have gone to the front to alleviate the sufferings, but their reception has usually been such as to chill the most ardent. Supplies are utterly wanting, unless taken with the surgeon, and in very many, if not most, cases, the visiting surgeon has been forced to furnish the transportation at his own expense and in the face of more than official indifference. English surgeons are fortunately men of muscle,—at least those who go to Turkey seem to be,—and, as in the case of Dr. Grover, command respect by beating Pashas' servants into a jelly. On the whole, as the *Lancet* puts it, it is a struggle of the English aid societies to compel the Turks to receive help for their sick and wounded.

Some time since, a report reached this country that the Turkish authorities had, in some cases, refused to allow amputation, because the men when they recovered would have to be supported by the Government. This seemed incredible; but the matter has become a subject of diplomatic correspondence, and the allegation appears to be true.

The principal Turkish medical officer at Erzeroum refused to allow Drs. Carrow and Featherstonhaugh to amputate, because "it was better that the men should die than that they should become burdens on the Sultan." Drs. Carrow and Featherstonhaugh at once intimated their return to England, when Ismail Bey, being frightened, gave way to their desires. It is said that the English ambassador at Constantinople was indignant at the tone assumed by Dr. Carrow! so much for habitual intercourse with the Turk. The position taken by Ismail Bey seems to be in accord with that of his Government.

According to the correspondent of the London *Times*, the regulations prescribe the following course when an amputation is thought to be required by the attending surgeon:

"The doctor in charge of the patient makes a report to the principal medical officer, who himself visits the hospital, examines the man, and, if he considers amputation necessary, lays the whole case before the Military Committee of the district, who decide as to whether the operation shall be performed or not."

This being the case, it is not surprising that the *Times* correspondent writes,—

"After conversation with doctors of all nationalities, I cannot learn of one single instance in which permission to amputate has been accorded by any of the three medical officers, either here, at Kars, or at Ardahan."

The query naturally arises, if this is the way Turk treats Turk, how does Turk treat Russian? It is noticeable that discourses about the "Gentle Turk" seem to be less frequent than they were.

THE most extraordinary athletic feat on record has just been performed in England by a man, æt. 44, named Wm. Gale, who is described as being under the average height, and not of marked muscular development. He successfully walked fifteen hundred miles in one thousand consecutive hours, the mile and a half being walked in the beginning of each hour. For six weeks, therefore, he had no nap of more than half an hour's duration. His physician gives (*Medical Press and Circular*) the following account of his condition at the close of the ordeal. Ten pounds of weight were lost during the walk.

"On the afternoon of the final day, Saturday, October 6, I again visited him between 3 and 4 P.M., and on his coming off the track into the adjoining hut he threw himself on the couch, and complained of feeling very cold; and, indeed, his hands and arms were quite cold up to the elbows. The pulse was 80, feeble, and very irregular. This state of collapse may have been partly due to his having imprudently taken a cold shower-bath an hour before. I immediately gave him a cup of brandy and egg, and had the hut cleared of all persons excepting his brother and sister. In ten minutes some reaction commenced, and he turned on his side and slept quietly until the time-bell rang. After the next mile and a half he had evidently revived. He said that he then felt the blood circulating. I gave him, however, some more egg nourishment, with a little brandy.

"But after one or two laps, he walked at the rate of quite six miles an hour, responding yet more and more to the deafening plaudits. In a few minutes after the completion of the fifteen hundred miles within the time specified, I examined him, kindly assisted by Dr. Farr, of Earlswood, and Dr. McOscar. The pulse had risen to 88, but was quite regular; the heart's action corresponded, and there was no murmur at base or apex. The temperature, by the thermometer within the mouth, registered 106.1°. The man was quite rational and calm; the expression of his face not in the least haggard, and neither pallid nor suffused, but having the appearance produced by exposure to the sun and air. There was slight congestion of the conjunctivæ under the eyelids; the pupils were not dilated, and answered to the influence of light. On inspecting the legs, the calf of the left leg presented a large varicose patch, the external saphena vein having become dilated and tortuous, into an eel-like form. Not the slightest œdema of the legs had occurred, nor was there any swelling of the knees or ankle-joints.

"The feet were quite sound, excepting a slight blister under the ball of the right great toe. To conclude, there was no tendency to varicocele or hernia. After standing up for this part of the examination, and the lapse of twenty minutes, the pulse remained at 88, but had become feeble and somewhat irregular, and the temperature had fallen to 97.5°."

Such an exhibition as this may have a homœopathic amount of usefulness as showing that man is not degenerating, but is harmful as inducing weak-minded but strong-legged persons to injure themselves in like attempts.

The London *Lancet* tells of a man who walked "one hundred and sixty miles in forty-eight hours," with "thirty-five

minutes to spare," and died the day following his achievement. Death is a rare and sensational termination of such labor. For every case ending in this way, there are probably a score in which a degree of physical mischief is produced sufficient to impair the constitution, if not to kill.

PHILADELPHIA medical books seem to be appreciated upon the Continent of Europe. Dr. S. Weir Mitchell's work upon "Injuries of the Nerves," already published in Paris, is about to appear at Rome in an Italian dress. Liebreich, the discoverer of chloral, and professor in the University of Berlin, is translating Dr. Stillé's Therapeutics into German; whilst H. C. Wood's Therapeutics is being rendered into Italian under the auspices of the rector of the University of Padua, for use as a text-book in that venerable institution.

LEADING ARTICLES.

THE FREE DISPENSARY SYSTEM IN PHILADELPHIA.

PROFESSOR PEPPER, in his introductory address delivered at the late opening of the one hundred and twelfth session of the University Medical School, mentioned the enormous increase of free dispensaries in this country and Europe as one of the growing evils of the present day, and quoted the statement of an English authority to the effect that in London fully one-fourth of the whole population obtain the services of medical men gratuitously. As yet, so far as can be discovered, there have been no tables drawn up, nor estimations made, of the number of free patients in any of the great cities of the United States. It is likely, therefore, that a statement of the dispensary system in this city would be of considerable interest both to the medical profession and to the public at large. In pursuance of this idea, statistics have been obtained of every hospital and dispensary in the city of Philadelphia for the year 1876 (except in four cases, marked in the table with an asterisk, in which no report has been published since the year 1875), and from them has been made out the following table, showing the year of foundation, number of out-door patients, number of visits paid by them, whole number of ward patients, and whole number of free ward patients, in forty-four institutions. The most careful inquiries made as to the existence of any additional charitable institutions in which any citizens of Philadelphia are received as free patients, have shown that the table includes in reality all the hospitals and dispensaries which at present exist inside the city limits. Private dispensaries have been omitted from the list, at least those which are avowedly such, as have also all those charitable institutions, such as the Naval Asylum, Christ Church Hospital, Girard College, and the House of Refuge, which were not endowed as hospitals, but which of course contain hospital accommodations for any of the inmates that may from time to time happen to be on the sick-list. All the figures in the table may be relied upon as entirely accurate, except those printed in bold type, where, no positive data existing, the result had to be reached by careful averaging. Of course, these figures may be slightly inaccurate; but so few cases in which this method was necessary have occurred, that the grand total could be but very slightly affected by the difference. In one or two cases it has been impossible to discover the date of the foundation of a hospital, and only in one or two instances has it been possible to note the birth of out-door departments of hospitals.

Some difficulty was experienced in drawing up the last column of figures, data of the number of free patients in the wards being only found in three or four cases. In seven hospitals all the in-patients were free. In thirteen cases (marked in the last column by an interrogation-point) no division was made between the two classes of patients. In these instances the number of free ward patients was estimated by applying the proportion of 1 to 5, which was found to hold between pay and free ward patients at the three hospitals where the distinction was made in the printed reports. As regards the percentage of ward patients not inhabitants of the county and city of Philadelphia, the number is shown to be so very small in those reports which consider the matter that it may with propriety be entirely disregarded, and particularly as most of those coming from a distance enter the hospitals as pay patients.

Name of Institution.	Year of Foundation.	Number of Out-door patients.	Number of visits paid by Out-door Patients.	Whole Number of Ward Cases.	Whole Number of Free Ward Cases.
Pennsylvania Hospital	1751	3,563	16,506	1,773	1,440
Philadelphia Hospital*		2,588 (district visits)		8,507	8,507
Philadelphia Dispensary	1786	15,714			
Ear Department of Philadelphia Dispensary		2,894	24,108		
Obstetrical Department of Philadelphia Dispensary		290			
Friends' Asylum for the Insane	1814			121	101 (?)
Northern Dispensary	1817	20,391		79	79
Southern Dispensary	1817	6,266			
Philadelphia Lying-In and Nurse Charity	1828	436		513	428 (?)
Wills Hospital	1832	3,575		458	382 (?)
Preston Retreat	1836			**160**	**160**
Jefferson Medical College Dispensary	about 1838	**3,500**			
Insane Department of Pennsylvania Hospital	1841			680	92
House of Industry Dispensary	1846	**3 393**	10,179		
St. Joseph's Hospital	1849	1,100		**600**	500 (?)
Episcopal Hospital	1851	11,954	23,369	1,417	1,215
Howard Dispensary	1853	6,719	20,540		
Children's Hospital	1855	6,519	13,221	198	165 (?)
Charity Hospital	1858	7,103			
Woman's Hospital	1861	6,070		313	261 (?)
German Hospital	1864	452	726	415	346 (?)
Jewish Hospital	1865	**500**		218	182 (?)
Municipal Hospital	1865			88	88
St. Mary's Hospital	1866	2,551	8,040	646	490
German Eye and Ear Infirmary	1866	No longer in existence.			
Orthopædic Hospital	1867	1,800		124	103 (?)
Church Dispensary*	1867	8,509		16	16
Germantown Homœopathic Dispensary	1869	Did not exist after 1872.			
Eye and Ear Infirmary	1869	No longer in existence.			
Germantown Hospital	1870	458	1,217	77	64 (?)
Dispensary for Skin Diseases	1871	371	2,368		
State Hospital for Women and Children*	1872			56	56
Presbyterian Hospital	1872	1,571	4,014	571	476 (?)
Throat and Ear Clinic	1872	Broke up in a year or two.			
University Hospital	1872	5,026		657	548 (?)
North-Eastern Dispensary	1872	Has degenerated into a private affair.			
Gynæcological Hospital	1874	230			
Philadelphia Ear Infirmary*	1874	350			
Mission Hospital	1874	5,334	14,272	19	19
St. Christopher's Dispensary	1875	1,365	2,860		
St. Christopher's Hospital	1876	No report yet out.			
Children's Homœopathic Hospital	1877	No report yet out.			
Homœopathic Hospital		4,598		190	158 (?)
Southern Homœopathic Dispensary		No longer in existence.			
Northern Homœopathic Dispensary		Broke up early in 1876.			
Chestnut Hill Hospital for Nervous Diseases		No answer to inquires received,—is said, on good authority, to be private.			
Total, 44 Institutions		135,090		17,896	15,876

Total number of free patients, 135,090 + 15,876 = 150,966.

The census of the city of Philadelphia, taken by the police department in April of 1876, showed the total population to be 817,448, a gain of 143,426 on the census of 1870. According to the same census (1876), the number of physicians in the city amounted to 1300: 1090 allopaths, 178 homœopaths, and 32 eclectics. This total is confirmed by a careful revision of Butler's Medical Directory for 1876. [According to the United States Census of 1870, the number of doctors in this city at that time was 1077.] Supposing all the population of the city to be obliged to pay for medical treatment, we should have but 630 units of population to each doctor; while according to the latest and most reliable calculations each doctor requires a community of from 1500 to 2500 persons for his support. Matters would be bad enough in our supposed case; but what is the actual reality? The table shows a total of 150,966—135,090 dispensary patients and 15,876 free ward patients—to be subtracted from the sum total of population as non-paying cases. This leaves a popula-

tion of 666,482 to support 1300 doctors, or only 512 souls to each doctor. As the medical profession is of necessity a mutually obstructive profession, one man rising to the top only to push others down, or, to speak more intelligibly, one physician increasing the number of his patients only to take them away from some other physician, it will at once be seen what a slim chance of earning a living is left for the rank and file of the profession, particularly those that live in healthy localities.

To take another view of the subject: the reports of thirteen institutions for the gratuitous relief of the sick give not only the number of patients that visited them during the year 1876, but also the number of visits paid by these patients: 47,144 patients and 141,420 visits paid, or just three visits for each patient. This proportion of one to three is not only the general average, but was also the proportion suggested by the resident physicians at several of the larger dispensaries where the inquiry was made as to the average number of visits paid by each poor person. Multiplying 135,090, the whole number of out-door patients, by 3, we get 405,270 as the whole number of visits paid to the various dispensaries in 1876. Supposing that each of these poor people, instead of going to the dispensary three times during the year, were to call in a doctor, and pay him only fifty cents a visit, we should have a grand total of $202,635, enough to divide among 81 doctors at the rate of $2500 each; and this does not include the free ward patients. Of course this yearly total of sick people who attend the dispensaries represents a much larger number of the population.

A fact which the above table also illustrates quite clearly is that homœopathic dispensaries are short-lived and find but few patrons; proving that the vast majority of homœopathic believers are to be found among the middle and upper classes of society. At the present day there is only one homœopathic dispensary in operation, so far as can be discovered.

Looking at the dates of foundation of the various hospitals and dispensaries, it will be seen that between 1751 and 1828 six institutions were started (the Almshouse probably dates back its origin to before 1828); between 1828–1838 three were started; between 1838–1848 three; between 1848–1858 four; between 1858–1868 nine; while since 1868 no less than nineteen hospitals and dispensaries have been founded (the homœopathic dispensaries are included in this number). This has evidently been at a rate entirely disproportionate to the wants of the community. The number of these institutions has doubled since 1865, while the population has only increased at the rate of twenty-one per cent.

It must be also remembered that the total number of dispensary patients during the year 1876 does not by any means express the sum total of cases where medical advice has been given gratuitously during that time. The 1300 doctors and upward of 650 clergymen that the city contained in 1876, and their families, were all probably attended without pecuniary recompense. To these must also be added the private dispensary patients. Altogether the grand result would not fall far short of 175,000.

Some months ago a letter was published in the *New York Medical Record* from a resident of Waterbury, Connecticut, to the effect that when a poor person in that town desired medical attendance, a certificate was taken from the town officials to the doctor, who then drew his fee for services from the municipal treasury. This little episode, though not by any means a solution, might well stand as the title for a long dissertation upon misplaced medical charity. That the evils of the present system of free dispensaries are self-evident, every one who has thought upon the subject allows; but no step has yet been taken in the direction of reform. When we come to look closely at the question, we are all obliged to admit that the city contains but few, very few, people outside of the almshouse so poor that they cannot afford to pay a doctor a small fee for each visit made. The worst of the matter is, that the majority of medical charities never stop to inquire into the financial status of an applicant for advice and medicines, and that the long line of patients waiting their turn to consult the dispensary doctor shows not a few individuals so well dressed and so well-to-do-looking as to cast a very serious doubt upon their supposed inability to pay for doctors' attendance. Nay, more, the instances are beyond counting, of men and women of undoubted means who prefer exposure before a room-full of medical students to paying for a doctor at home.

The clinics daily held at the University, Jefferson, and Pennsylvania Hospitals are supposed to justify their respective out-door departments in soliciting as large a number of patients and as great a variety of cases as possible from which to select interesting subjects for the lectures. But even in these exceptional cases, care should be had that none of those who present themselves for treatment are able to pay for private medical attendance. The temptation to hold on to all new and rare complaints that come to hand, whether they occur in high or low, for the purpose of valuable clinical instruction of medical students, is indeed a very strong one, but it should be at the same time remembered that it is setting a very bad example, and but too often disastrously overstretching medical charity. If this be so at the medical clinics, what shall we say of the dispensaries yearly prescribing for twelve, or eighteen, or twenty, thousand persons, whose diseases serve no scientific purposes of illustration, and the vast majority of whom are either in need of no treatment at all or abundantly able to pay, not large, perhaps, but certainly moderate fees for doctors' visits? It would only be a cause of trouble and unpleasantness to mention names, but cases have frequently occurred in my own notice and hearing of people of undoubted wealth, worth say from ten to fifteen thousand a year, receiving some little injury or suffering from some little complaint and going regularly to the resident doctor at a neighboring dispensary for treatment, and when cured never offering to pay a cent, nay, even carrying away free medicines with them daily without dreaming of payment. Now, I do not mean to say that these cases are at all numerous; on the contrary, it can only be a very mean spirited man or woman of wealth who would thus avail himself or herself of free dispensary advantages; but they serve to point the moral of my story. At the other pole of the subject, I know of one dispensary in town, and that a regularly established one, several of whose attending physicians told me that the place was among other things a regular resort for vagabonds and "loafers," who did not need medicine in the least, but who came to the dispensary simply to "drive dull care away" and to get a little sweet medicine, "a little syrup or something." Again, I might cite the case of another of the prominent free dispensaries in town where whisky was frequently and with perfect propriety prescribed for anæmic, ill-fed, sickly-looking children. One of the servants of the place was surprised to see upon one occasion a woman with a wee little sickly baby in her arms suddenly stop just outside of the dispensary door and drawing the cork out of a bottle she held in her hands, apply said bottle to her mouth and rapidly dispose of the contents. After this little manœuvre had been noticed several times, the attending physicians began to understand what became of all the whisky. This happened at a dispensary where several thousand dollars are annually given away in the shape of medicines for the poor. One more, somewhat amusing incident, and I have done. A well-dressed lady walked into one of our city hospital dispensaries, and, in her turn, was admitted into the private room. A somewhat sickly smile of recognition was seen to light up the dispensary doctor's countenance. "Oh, doctor," said the lady, "I think I owe you a little bill." She took out her purse and paid the long-owing bill for private attendance, and then proceeded to state her complaint and obtain gratuitous treatment *like any other poor person.* Could there be better illustrations of the way in which the dispensaries are pauperizing the community? Do not let it be thought that these instances are in the least apocryphal: on the contrary, they are true.

The good people of Philadelphia most trustfully believe that all the money which they annually turn out of their pockets into the dispensary coffers will some day return to them a hundredfold, and never stop to think for one sober moment upon the thousand mistakes daily committed under the alluring title of "free medicines and free medical aid for the sick and deserving poor." They are confident that in every dispensary the management is centred in most excellent hands, and that financial matters are executed in a manner entirely honest and altogether above question; they know that hundreds of young doctors are deriving most useful daily *experience* (young doctors nowadays never think of pecuniary recompense for their services) from the thousands of cases under their immediate control; they never stop to look behind the scenes, and in their most praiseworthy ardor never dream that they are committing in many instances, though

perhaps in a somewhat milder form, the same vital mistake as when they give a worthless, unknown beggar (though in this case he is not always by any means an avowed beggar) ten cents at their door. To paraphrase somewhat a well-known saying, "O charity, how many irremediable errors are committed in thy name!"*

SAMUEL M. MILLER.

CORRESPONDENCE.

NEW YORK, October 27, 1877.

TO THE EDITOR OF THE PHILA. MEDICAL TIMES:

DEAR SIR,—At a meeting of the Academy of Medicine, October 4, Dr. V. P. Gibney read the report of a case of *tubercular meningitis* which recovered under the use of ergot. He prefaced it with the statement that he had had unusual facilities for the study of this disease, and that he had long been skeptical in regard to recoveries from it; but, nevertheless, he could not but believe that his diagnosis in the case was correct.

The patient was a child in the Hospital for Ruptured and Crippled, who had been suffering for a considerable time from disease of the hip-joint, and whose family history was such as to render it highly probable, at all events, that the affection was tubercular in character. The father was a drunkard, and died, at the age of forty, of disease of the heart; while the mother died, at the age of forty-four, from phthisis. Before the attack commenced (a little more than a year ago), the child had been suffering from a severe abscess in the groin. Many of the characteristic symptoms of tubercular meningitis were present, while some of them were lacking. Vomiting was the first one noticed, and one of the most marked features of the case was the obstinate constipation, which it was very difficult to relieve. On the first day the pulse went up to 136, and the temperature to 103½°. On the second day the temperature was 101° in the morning and 102¾° in the evening, and on the third day it was 100½°. On the fourth day the temperature was 100¾°, and the patient remained for the most part in a semi-comatose condition, while the progressive loss of flesh was most marked. The pulse was now intermittent in character, and the pupils were dilated. The bitartrate of potassium and jalap, and even croton oil, having failed in overcoming the constipation, a quarter of a grain of elaterium was given, and ergot (half a drachm of the fluid extract) was now for the first time administered. The latter, however, was not retained by the stomach. On the fifth day the pulse was 96, respiration 28 and of a sighing character, and the temperature 101°. The child complained of headache when roused, but for the most part remained in a somnolent condition. A drachm of the fluid extract of ergot was given every three hours, the patient being made to take cracked ice just before its administration; but, notwithstanding this precaution, it was frequently vomited. Enemata were now given with success for the constipation, and from this time were repeated daily. On the sixth day the first signs of improvement were noted, and the patient gradually grew better until the fourteenth day, when convalescence seemed fully established. In the mean while the ergot had been diminished to half-drachm doses and given at less frequent intervals. About the fifteenth day, however, there was a return of the obstinate constipation, and on the seventeenth day there seemed to be a relapse of the disease, the temperature running up to 102½°, and quite profound stupor setting in. The ergot was now given in the form of the solid extract, about two grains every two hours, and in a short time all the unfavorable symptoms again passed away. From this time there was no outbreak of the disease until June, 1877, when another relapse seemed to take place; and again it appeared to be readily controlled by the ergot, which was now given in drachm doses of the fluid extract three times a day. The child is still in the hospital, and is now doing as well as can be expected with the severe disease of the hip from which it suffers. The child is somewhat deaf, which may be due either to the meningitis or to some old inflammatory trouble in the middle ear. In summing up the points of a differential diagnosis of the case, Dr. Gibney excluded septicæmia on account of the temperature-record, and catarrhal pneumonia at the apex of the lung (once or twice there was bloody expectoration) on the ground that the physical signs were lacking, and also that if the disease had been severe enough to produce the symptoms noted, the child would inevitably have died. Neither did there seem to be any reason for supposing it to be a case of typhoid fever of unusual type, attended with constipation and an irregular temperature-wave. In making a diagnosis between cerebro-spinal, simple basilar, and tubercular meningitis, it was certainly reasonable to presume that the affection was of the latter character, from the antecedents of the case and the existing strumous disease of the hip. There had been no convulsions in the case, simply for the reason that the convulsive stage of the disease had not been reached; and Dr. Gibney made the remarkable statement that he felt confident of being able to control, by the early exhibition of ergot, any future attack of meningitis that might come on while the child was still under observation at the

* Thanks are due to Robert B. Cruice, M.D., secretary of St. Joseph's Hospital, and to Wm. H. Bennett, M.D., attending physician to St. Christopher's Dispensary for Children, for information afforded relative to the above institutions.

hospital. In similar cases he recommended the free use of ergot, preferably in the form of the fluid extract, or in that of the solid extract, if that was not well borne. In case convulsions were present, he advised it to be given hypodermically. Ice-bladders should be kept constantly applied to the head, and daily enemata given. In addition, it was absolutely essential that the patient should be surrounded by perfect quiet, supplied with the most nutritious diet, and nursed in the most careful manner.

A number of gentlemen took part in the discussion which followed the report of this interesting case; some of whom coincided with Dr. Gibney in his opinion of the case, while others were rather skeptical as to the diagnosis of true tubercular meningitis. Dr. John C. Peters thought the case might possibly have been one of acute cerebral anæmia, resulting from the wasting disease from which the child was suffering, and was of the opinion that all the symptoms detailed might thus be accounted for; though he was willing to acknowledge that in exceedingly rare instances recovery from tubercular meningitis seemed to take place. He had for many years made a careful study of this disease, having presented two cases to the Pathological Society as early as the year 1845, and had never known a case to recover in which he thought the diagnosis well made out. As a rule, he believed that patients suffering from tubercular meningitis were also the subjects of general miliary tuberculosis, and in every autopsy that he had made after this disease he had found this to be the case. In 123 out of 138 tabulated cases general tubercular deposit was found after death.

Dr. Dupuy remarked that twenty-five years ago in Paris all patients suffering from tubercular meningitis were left to die, under the idea that recovery was impossible, until at last one of them recovered spontaneously; when the physicians began to think that it might be worth while to do something for the disease after all. Since then a number of well-attested recoveries had been reported. In some instances he had seen Calabar bean act very happily, and in others the bromide and iodide of potassium. One physician, of Zurich, had reported no less than thirty-four successful cases, which were, for the most part, treated by large doses of calomel. Absolute proof that patients do sometimes recover was furnished in the fact that the remains of old tubercular trouble have been found in those who succumbed to a second attack of the disease. In tubercular meningitis he believed the chief danger to be the poisoning of the blood by effete matter, the effect of which was like a narcotic poison. One evidence of this is the gradual falling of the temperature; so that one of the great indications in the treatment is to keep the temperature up to the normal standard. He recalled one case in the Hôpital des Enfants Malades in Paris, in which he believed life had been preserved by keeping the patient in a bath of 98°. He had found one diagnostic point of value furnished by the sense of smell. Patients suffering from tubercular meningitis exhaled an odor strikingly resembling that of wet linen. The characteristic odor of tetanus, on the other hand, was that of a wet cloth coat.

Dr. Salvatore Caro thought Dr. Gibney could hardly claim priority in the use of ergot in this disease, for he had long ago seen it noticed by European writers, and believed that it was now quite a common practice to employ this drug in all the various forms of meningitis. Personally he had used it with success in the tubercular variety; and he said that he had also met with good results from the carbonate of iron (in doses of two or three grains every two or three hours), as well as from the bromide of potassium. From the extraordinary manner in which Dr. Caro talked of curing tubercular meningitis, one might suppose it was an affection about as amenable to treatment as an ordinary bronchial catarrh.

An exceedingly interesting session of the Academy was held October 19, when Dr. Fordyce Barker made an address on the *Obstetric Forceps*, with a demonstration of the forceps of M. Tarnier, and its new principles. The first part of it was devoted to a *résumé* of the history of the forceps and the revolution that has taken place in its use, particularly in Great Britain; and he attributed the infrequency of its employment formerly to three causes: 1, ignorance of the mechanism of labor; 2, failure to recognize the dangers, both to mother and to child, from prolonged labor; 3, the confounding of the difficulty met with, and skill required, in applying the forceps at the superior and inferior straits. The change was perhaps most noticeable in Dublin, where George Johnson, master for some years of the Rotunda Lying-in Hospital, applied the forceps once in every 11⅛ cases; while his predecessors, Clark and Collins, only applied it once in about every 700 cases. Dr. Barker made an eloquent plea for the still more frequent use of the forceps in this country than is at present practised, and spoke particularly of the advantage of the instrument in preventing rupture of the perineum, and in avoiding the dangers of delay by its application at the superior strait in appropriate cases. During a practice of twenty-five years he had never had a laceration of the perineum sufficiently serious to require surgical interference. The essential requisites for the application of the forceps at the superior strait he considered as follows. 1. The operator should thoroughly comprehend the reason why the instrument is required, or, in other words, why the *vis a tergo* is not adequate to

accomplish the delivery. 2. He should understand the mechanism necessary to overcome the difficulty when ascertained. 3. He should operate very slowly. The great temptation is to go ahead too fast; but Dr. Barker said that personally he never occupied less than thirty minutes in bringing the head through the superior strait; generally he took about forty-five minutes, and sometimes over an hour. 4. He should have a good instrument. He himself was in the habit of using Simpson's forceps almost exclusively, and considered it very perfect; though he occasionally wished he had a pair of Dubois's (or White's, which is the same thing) with him. The short forceps he frequently applied without changing the position of the patient.

Lately a great excitement has been caused in France by Tarnier's new forceps, and while a large number of eminent men are advocating its use, some of the best authorities, among whom is Pajot, are strongly opposed to it. It has been called the "needle forceps," from the fact that the handles serve as an indicator (like the needle of a mariner's compass) to show in which direction traction ought to be made; and its distinctive characteristics are its peculiar curve, and two metallic tractors attached to the blades separately from the handles. Theoretically, it is designed to accomplish the following results. 1. To cause traction always to be made in the direction of the axis of the pelvic curve. 2. To allow the fœtal head such mobility as to admit of its passing through the pelvis and soft parts in the varying position which it would assume during a natural labor. Ordinarily its movements are governed entirely by the forceps. 3. To furnish a guide to indicate to the operator exactly in what direction traction should be made all through the delivery.

In using the ordinary forceps at the superior strait a considerable portion of force is lost by the necessary pressure against the pubes and soft parts anteriorly, and at the inferior strait still more force is wasted. In addition, the pressure is positively injurious to both mother and child. It is injurious to the child because the greater the amount of traction employed, the greater the compression of the head. Dr. Barker said he had been much pleased with Tarnier's forceps theoretically, but was not willing to commit himself as advocating it until after giving it a fair trial. As yet he had only had the opportunity of applying it in one case, an occipito-posterior position, and in that it had converted the vertex into a face presentation; but the same thing would have occurred in the case if he had used any other forceps. Various objections have been urged against Tarnier's instrument; one of them proposed by Pajot is, that it is apt to do injury to the tissues composing the posterior wall of the pelvis. Another objection, which had suggested itself to Dr. Barker, was in reference to the lock, which is of such a character as to deprive the operator of knowing just how much compression he is employing. After the conclusion of Dr. Barker's address the subject was discussed in a very forcible and entertaining manner by Professors White, of Buffalo, Lusk, and Isaac E. Taylor. They all spoke in opposition to the new instrument, which Dr. White characterized as a "useless bit of toggery," while he prophesied that in twenty years from now it would be seen only in collections, like the old Chamberlain forceps; but I regret that lack of space will prevent me from giving any details of their remarks.

At the last meeting of the New York Public Health Association, Dr. E. G. Janeway, in a report from the Standing Committee on the sanitary condition of New York and vicinity, showed that the health of the city during the last three months of 1876 and the nine months of 1877 ending October 1 has been better than for several years previously. Only fourteen deaths from smallpox have occurred since the 1st of January last, and during the past four months not a single case of the disease has been reported. Dr. Janeway was of the opinion that if every case of smallpox were promptly reported as soon as discovered, the disease could be practically stamped out, and gave an instance to show the evil results which followed when a case was not made known to the health authorities. Some months ago a man was reported to have died in a down-town tenement house, of pneumonia; but, as there seemed to be some suspicious circumstances about the case, he went himself to investigate it, and found the corpse completely covered with the eruption of confluent hemorrhagic smallpox. This case, as well as a number of others, he ascertained had originated from a child in the house who had been suffering from varioloid, the drying scabs of which were still noticeable on its body. Diphtheria and all the other zymotic diseases, with the exception of scarlatina, have been less prevalent during the last few months than for several years previously, and the mortality from diarrhœal affections during the past summer has also been less than usual.

After some discussion upon Dr. Janeway's report, Mr. Charles Barnard, in the absence of Dr. Willard Parker, its president, read the report of the Committee on *Provident Dispensaries* appointed last May. During the interval that has elapsed since then the Committee have made an investigation of the cases of about 150 families, members of which had applied for medical aid at the free dispensaries, and they have arrived at the following conclusions: that those families whose income is but ten dollars a week and under ought to have free medical attendance; that those whose weekly income is over ten and under twenty dollars can afford to pay ten

cents a week to a provident dispensary; and that those whose income is twenty dollars and over should be compelled to pay for the services of a private physician. During the summer Drs. C. R. Agnew and D. M. Stimson, at the request of the Committee, made inquiries into the working of the provident plan in England, and found that it was very satisfactory and met with the approval of the best authorities. In consequence of the favorable nature of the report of the Committee, a resolution was passed by the Association recommending that the various free dispensaries of this city organize provident systems in connection with their present work, and require all patients who can afford it to avail themselves thereof, or else be refused treatment.

Some of the daily papers have been commenting rather severely on the College of Physicians and Surgeons for refusing to admit a negro student from Costa Rica. The Faculty defend their action principally on the ground of expediency, claiming that it would be detrimental to the interests of the college to have colored students attend lectures there.

At the first meeting of the Medical Journal Association this season, Dr. E. C. Angell read a paper on "*Ancient and Modern Insolation or Solarization*," which showed evidences of no little research, and which will, no doubt, form a contribution of some value to the interesting and important subject of heliosis or solar therapeutics.

For the past twelve years Dr. Angell has made use of the sun's rays as a remedial agent, and has met with a very fair measure of success in so doing. In every case of acne that he has tried solarization the patient has been cured; while in one case of chronic and obstinate eczema the affection yielded to three treatments of one hour each. Of two English gentlemen who were suffering from dyspepsia, one gained ten pounds in three weeks, and the other twenty pounds in six weeks, and both were cured of their trouble. But, as a rule, the first effect of insolation is to cause a loss of weight; while the patient gains correspondingly in buoyancy and vigor. A case of chronic bronchitis was cured by twelve treatments of an hour and a half each, one hour being spent in the direct rays of the sun, and half an hour under glass.

Dr. Angell thought the blue-glass furore had at least been of service in calling public attention to the real value of the effect of the sun's light on the human economy; though he was exceedingly skeptical in regard to General Pleasanton's whimsical philosophy. There was no essential therapeutic effect in any particular color, said he, but blue glass was useful in cutting off a considerable part of the heat and light of the sun, while it retained the active rays in about their normal force. Blue glass might be of great service to those individuals who were too weak to bear the full power of the sun, just as blue goggles were grateful to a person with weak eyes; but, like the goggles, it was to be discarded as soon as he was able to bear the strong sunlight. To receive the greatest amount of benefit, the whole body should be exposed, and if to the direct rays of the sun, it should be anointed with some unctuous substance, which might be repeated at the end of half an hour. The direct ray is of the most service, and, in combination with the wind, imparts a beautiful bronze hue to the skin. Dr. Angell then went on to describe the best method of constructing a solarium, and concluded his paper by recapitulating some of the affections in which the sun-bath was most serviceable, and which were mostly of a chronic nature, such as gout, rheumatism, acne, neuralgia, bronchitis, and asthma. He believed it to be also very useful in saving the stout from fatty degeneration.

Dr. Sayre returned from Europe about the 1st of October, and was greatly benefited in health by his trip, notwithstanding the extraordinary amount of work he succeeded in accomplishing while on the other side. During his brief sojourn in England and Ireland he not only wrote a book, but "put up," with the skilful assistance of his son, Dr. Lewis Hall Sayre, no less than 170 spinal cases, in public and private practice; and his demonstrations at all the principal hospitals of London, and in the cities of Manchester, Birmingham, Liverpool, and Cork, according to the *British Medical Journal*, "proved to be of so deeply interesting a character, and were delivered with so much genuine enthusiasm and intensity, and contained so many traits of humor and tenderness, that they created the highest enthusiasm on the part of his hearers." The same journal acknowledges that the use of the plaster-of-Paris bandage in angular and lateral curvature of the spine "constitutes a new era in that department of surgery, and its already proved success entitles us to say that this method of treatment will prove an inestimable boon to thousands of persons now and hereafter." His work, which has been brought out in very handsome style by Messrs. Smith, Elder and Company, of London, bears the title of "Spinal Disease and Spinal Curvature, and their Treatment by Suspension and the Use of the Plaster-of-Paris Bandage." It is amply illustrated by wood-cuts; but what makes it almost unique is the large number of elegant photographs which it contains. These are arranged for the most part in series of four, showing in a very admirable manner the patient before, during, and after the application of the plaster jacket, and also after recovery or marked improvement has resulted. Dr. Sayre has offered a prize of $200, open to graduates of Bellevue College, for the best essay on the pathology of Pott's disease of the spine.

P. BRYNBERG PORTER.

REVIEWS AND BOOK NOTICES.

JOHNSON'S UNIVERSAL CYCLOPÆDIA: A SCIENTIFIC AND POPULAR TREASURY OF USEFUL KNOWLEDGE. Volume I. A to E. New York, Johnson & Son.

Fairly and exhaustively to review a publication of this character would necessitate an amount of talent and of knowledge only comparable to that which has produced it; but no scholar, however humble, no individual who has daily occasion in his office or counting-house rapidly to refresh his memory or to acquire new information on any subject connected with any department of human knowledge, can fail to recognize in this Cyclopædia one of the most valuable recent additions to English literature. In conciseness, clearness, comprehensiveness, and especially in originality, it far exceeds any work of the kind which has been published in late years. Where there are so many recommendations to popular favor it is difficult to select the chief; but perhaps the two points which most favorably impress the reader are the eminence of the contributors, and the fact that their names are in nearly every case appended to the articles which they have severally written. In this way, every element of doubt as to the reliability of any particular statement is eliminated, and one is able to refer to this work with a highly satisfactory feeling of confidence in the result.

In cases where the importance of the subject or the length of the article has not merited the especial attention of one of the more distinguished contributors, we find, nevertheless, that it has been carefully revised by some one whose name carries authority and weight. Many of the medical essays have in this way been corrected and endorsed by Prof. Willard Parker, of Columbia College; those on geology and allied subjects by Prof. Newberry, of the same institution; on botany by Prof. Asa Gray, of Harvard; on zoology by Dr. Theodore Gill, late Congressional Librarian; the names in the other departments being equally distinguished with these.

In another respect this Cyclopædia differs from most others, and that is in the entire absence of the "second-hand" flavor which is so apt to pervade works of this character. In the comedy of "Our Boys," where these unfortunate individuals are supporting themselves by furnishing "copy" for a new gazetteer, their only source of information being another one ten years old, they overcome one of their principal difficulties by the simple plan of doubling the population in each instance. This, though an original, was hardly a reliable method; but in the work under consideration the great majority of the articles have the rare merit of combining both originality and reliability, and the result is a series of monographs in the highest degree entertaining and instructive. In glancing rapidly over the medical articles contained in the first volume, we notice, however, that they are not so full as are those upon legal, purely scientific, or industrial subjects, a distinction which is hardly a satisfactory one to a physician, though it may give the greatest satisfaction to the greatest number. In illustration of this, it may be mentioned that the subjects of "Amputation," "Apoplexy," and "Aneurism" are dismissed with a few lines each, while "Apportionment" occupies a column, "Arrowroot" a column, and "Butter" a page and a half. Acupuncture is described, but acupressure, much more important, is not mentioned; alcohol is spoken of only in its chemical relations, no account of its therapeutic or poisonous effects being given. These are minor matters, of course, as there are few omissions, and the articles, as a rule, contain such information couched in such language as will be comprehensible to any non-professional inquirer. It would be useless to attempt to enumerate the especial articles connected with medicine and the allied sciences which are contained in this volume, but we may mention those on Blood, Baths, and Congenital Diseases, and especially those on Acoustics by Rood, on Comparative Anatomy by Cope, on Embryology by Dalton, and on Electricity by Morton. These and many others are of the very highest order of essays, and are typical examples of what full and comprehensive but at the same time clear and concise cyclopædia articles should be, but unfortunately seldom are.

Among the biographical notices of physicians we find those of Benjamin Barton, Dunglison, and Da Costa; but no mention is made of Rhea Barton, Carson, Agnew, or Ashhurst. We are at a loss to know what determined the distinction. A very insufficient notice of "Darwinism," by Prof. Youmans, is followed by a more elaborate criticism of the same theory by President Seelye, of Amherst. "Evolution" has been ably and thoroughly dealt with by Prof. Henry Hartshorne, whose article on this subject is one of the most admirable in the volume; though he only partially accepts the conclusions to which this great hypothesis has led the majority of scientists. The print, while small, is clear and distinct, and the volume, as a whole, reflects the greatest credit upon its authors and its publishers. J. W. W.

GLEANINGS FROM EXCHANGES.

HEMORRHAGE FROM THE HAND (*The Lancet*, October 13, 1877).—Mr. Maunder, in a communication relative to a case of bleeding from the hand which had necessitated several successive ligations, calls attention to a method of treatment which he says has not been advisedly used, but which will, in his opinion, obviate the need for multiple liga-

tions. His proposition is this: "Should hemorrhage recur *after* the brachial has been ligated, *compression* at the original wound would probably be effectual." Before the operation, the blood is thrown with force by the heart, and readily dislodges a clot and prevents repair. Thus, the flow of blood is direct; but, with a ligature intervening between the heart and the wound, the force of the circulation is considerably spent against that barrier, the blood arrives by a circuitous course, and nature's efforts at the seat of the wound in the artery are sufficient to withstand, *with compression added*, the impact of the blood.

Although in no instance in which Mr. Maunder has tied an artery at a distance from the source of bleeding has hemorrhage recurred, yet he thinks that his success must be regarded as *accidental*, because, the vascular chain being broken at the bleeding-point, the effects of reaction and the moment of the establishment of the collateral circulation cannot be foretold with certainty. It may be questioned whether, in the upper extremity at any rate, ligature of the brachial would be a remedy for a primary bleeding from the hand. Doubtless, the more or less exhausted condition in which the patients are when this operation is resorted to, consequent on repeated loss of blood, tends to a successful issue from one point of view,—the hemorrhagic. The operation is at variance with the sound principles of surgery of the arteries, but in these instances (hemorrhage from a doubtful source in an important region) an exceptional method is unavoidable.

Whether to ligature one or both arteries in the forearm, holding the brachial in reserve, or to tie this latter in cases of uncontrollable bleeding from the hand, is a vexed question still. He prefers the latter. It is further from the lesion, and lying among comparatively sound structures, where the wound is less likely to be contaminated by unhealthy secretions, and more ready to take on reparative action. The varying arterial distribution to the hand renders the result of deligation of the radial and ulnar vessels more uncertain. Repeated hemorrhages are both exhausting and alarming to a patient, while repeated operations are painful and harassing, and also discreditable to surgery in the estimation of the public.

NOTES AND QUERIES.

To the Editor of the Philadelphia Medical Times:

Dear Sir,—Your issue of October 13, 1877, contained two letters denying that the cases reported by Dr. Hinton were examples of pityriasis rubra I beg leave, with your permission, to submit the following as an answer to the-e communications. The diagnoses were made after careful consideration; and previous to bringing the cases before my class they were seen by Prof. Wm. H. Pancoast and Drs. Hinton and Sargent, who endorsed my opinion as to their nature. When the symptoms of the cases mentioned in the article of the 15th of September are compared with the descriptions of pityriasis rubra given by eminent European dermatologists, I think it will be admitted that I was right in my designation. Mr. Fox, in his work on Diseases of the Skin, indicates that pityriasis rubra is not an unfrequent occurrence in his practice. Let me compare the chief points cited in his description of this disease with the main features exhibited in the cases reported by Dr. Hinton.

According to Mr. Fox, in pityriasis rubra patients are debilitated, pallid, and sometimes emaciated. The disease attacks the whole body. The body is covered by branny lamellar scales, that are yellow and flaky; in addition, it may be studded over with points, giving the appearance of goose-skin, or of a nutmeg-grater. The scaliness may be markedly imbricated in regular order, like the tiles of a house, with red hyperæmic surface exposed beneath these masses. The number of scales shed day by day may be prodigious. The patients are generally tormented by burning heats.

In the three cases reported by Dr. Hinton the patients were pale and emaciated. The disease attacked the entire body of each patient. Branny lamellar scales covered the body of each; in one case the skin of half the body was studded over with small elevations having the appearance of goose-skin The scales were yellow and flaky, and on the arms, trunk, and limbs were imbricated. Scales were shed in prodigious numbers, leaving behind a very red surface. One case complained of a burning skin.

Prof. Hebra, representing the Vienna school, stated that after many years pityriasis rubra terminated fatally, but he differs from other authors in his views respecting this affection.

Prof. Hardy, of the French school, gives the symptoms and diagnosis of this disease in a clear and practical manner. I translate and quote below from his Leçons sur les Maladies de la Peau: "The second variety of pityriasis, as to color, is the pityriasis rubra, which is more rare than the former (pityriasis alba); in this disease the scales rest upon a red skin. They are larger and adhere more strongly than in the preceding variety, and are accompanied with itching and smarting. There is scarcely any other disease than pityriasis rubra which spreads over all the surface of the body. The diagnosis of pityriasis is generally easy, the diseases which resemble it being psoriasis, eczema, etc. One can only hesitate between psoriasis and pityriasis when it takes the form of pityriasis rubra; still, a little attention suffices to remove all doubt." The cases under my care had the same prominent symptoms mentioned by Prof Hardy. It is suggested in one of the letters that the description of the affections as given might easily apply to psoriasis. I am quoted as saying, in the communication of September 15, that "in psoriasis the scales are finer and resemble mother-of-pearl, instead of presenting the yellow and flaky appearance of the scales in this case. If one of the scales in psoriasis is removed, a bleeding surface is visible." Now, Prof. Louis A. Duhring, in his Treatise on Diseases of the Skin, when giving the difference between pityriasis rubra and psoriasis, says, "*The scales, moreover, are very different in these two diseases*, and *are* ALONE *sufficient to establish the diagnosis.*"

I would say, in conclusion, that the article which had called forth the communications to your journal does not claim to be an elaborate dissertation on pityriasis rubra, but only, as its title indicated, brief notes of a clinical lecture on the treatment of this affection.

Yours truly,
J. V. Shoemaker.

We are in receipt of a letter from Dr. Lamadrid stating that he uses in hemorrhoids half an ounce (f℥ss) of Squibb's fluid ext. ergotæ as an injection twice a day, and not half a drachm (f℥ss), as stated in his recent article.

FOR CHAFED INFANTILE SKIN.

Powder the chafed parts with dry oxide of zinc. It will require but a few applications to relieve the severest case.

C. W. Brown, M.D.,
Elmira, N.Y.

New York, October 19, 1877.

Horatio C. Wood, M.D.,
Editor of the Philadelphia Medical Times:

Dear Sir,—In reply to the correspondent who desires a formula for "chafed infantile skin," allow me to recommend the following:

℞ Sulphate of Morphia, gr. j;
Precipitated Carbonate of Zinc, ℥j;
Vaselina, ℥j.

To be applied every two hours.

White castile soap only to be used, or instead an alkaline wash.

If the case fails to improve, the above application should

be stopped, and instead the parts should be painted four times daily with a six per cent. solution of oleate of mercury for five or six days. Then the salve should be reapplied. As soon as a cure has resulted, the parts ought to be dusted with equal parts of lycopodium and precipitated carbonate of zinc for a few weeks.

Most cases will yield to the above treatment.

Yours respectfully,
F. E. BECKWITH,
Resident Physician to Nursery and Child's Hospital,
New York.

MARRIED,

On the 24th of October, Dr. Oscar H. Allis to Julia, daughter of the late Judge Oswald Thompson.

OBITUARY.

DIED, October 13, 1877, WILLIAM MASON TURNER, M.D., in the forty-second year of his age.

Dr. Turner was born in Petersburg, Virginia, in December, 1835. Having received the education afforded by the High School at Hicksford, in Greenville County, he entered at Brown University, Rhode Island, where he graduated with high honors in 1855. Coming to Philadelphia immediately after, he took his degree in medicine at the University of Pennsylvania in 1858, and then visited Europe to complete his studies. He spent much time at Paris, receiving instruction from Malgaigne, Velpeau, Brown-Séquard, Cazeaux, and Ricord while following their lead in the hospitals of that city. Early in the following year he made a tour through Egypt and Syria, keeping a daily journal of his observations that culminated in the publication of "El Khuds the Holy," a work replete with descriptions of the sacred places in the Holy Land, and meeting with much favor.

His contributions to medicine were many, through the journals of the day, and were marked by original thought,—always showing his great speculative ability in the sick-room. An article on diphtheria, contributed to the *Charleston Medical Journal* in 1860, and copied by the London *Lancet*, gained for him great praise; while his papers to the *Philadelphia Medical Times* were read with much profit.

Other literary channels engaged a portion of his time, as is attested by the many well-written romances published from time to time in two leading periodicals; while his poems commanded admiration for the Christian spirit that characterized them and which made them ever welcome in the household.

The affection that terminated the life of Dr. Turner was cerebral apoplexy,—the same that destroyed his father, Joseph Turner, Esq., a prominent lawyer of Petersburg, Va., and member of the Virginia Legislature, at the early age of forty-five years.

OFFICIAL LIST

OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U.S. ARMY FROM OCTOBER 21, 1877, TO NOVEMBER 3, 1877.

By direction of the Secretary of War, a Board of Medical Officers is appointed to meet in New York City on the 7th day of November, 1877, or as soon thereafter as practicable, for the examination of Assistant-Surgeons for promotion, and of candidates for admission into the Medical Staff, U. S. Army. Detail for the Board: Surgeon JOSEPH B. BROWN, Surgeon JOSEPH H. BILL, Surgeon CHARLES H. ALDEN. Surgeon Bill is relieved from duty in the Department of the South. S. O. 223, A. G. O., October 30, 1877.

MURRAY, R., COLONEL AND SURGEON.—To report in person to the Lieutenant-General commanding the Military Division of the Missouri, for assignment to duty as Medical Director of that Division. S. O. 220, A. G. O., October 25, 1877.

HAMMOND, J. F., LIEUTENANT-COLONEL AND SURGEON.—To report in person to Commanding General, Division of the Atlantic, for assignment to duty. S. O. 217, A. G. O., October 19, 1877.

MCPARLIN, T. A., MAJOR AND SURGEON.—Assigned to duty as Attending-Surgeon in New York City, relieving Surgeon Hammond. S. O. 217, c. s., A. G. O.

ALEXANDER, R. H., MAJOR AND SURGEON.—Relieved from duty in Department of the Columbia, to proceed to Philadelphia, Pa., and, on arrival, report by letter to the Surgeon-General. S. O. 220, c. s., A. G. O.

FORWOOD, W. H., MAJOR AND SURGEON.—Relieved from duty at Allegheny Arsenal, Pa., to proceed to McPherson Barracks, Atlanta, Ga., and report to the Commanding General, Department of the South, for duty. S. O. 253, Division of the Atlantic, October 28, 1877.

HARTSUFF, A., MAJOR AND SURGEON.—Relieved from duty in Department of the Platte, and to report in person to Commanding General, Division of the Atlantic, for duty. S. O. 220, c. s., A. G. O.

JAQUETT, G. P., CAPTAIN AND ASSISTANT-SURGEON.—Assigned to duty at Fort Barrancas, Florida. S. O. 169, Department of the South, October 23, 1877.

BROOKE, J, CAPTAIN AND ASSISTANT-SURGEON.—Relieved from temporary duty in Department of the Columbia, and to return to his proper station in Department of the South. S. O. 217, c. s., A. G. O.

GARDNER, W. H., CAPTAIN AND ASSISTANT-SURGEON.—Assigned to temporary duty in the office of the Medical Director of the Department. S. O. 169, c. s., Department of the South.

BROWN, H. E., CAPTAIN AND ASSISTANT-SURGEON.—To proceed to Fort Wadsworth, N. Y. H., and report for duty. S. O. 246, Division of the Atlantic, October 21, 1877.

SMART, C., CAPTAIN AND ASSISTANT-SURGEON.—Relieved from duty in Department of the Platte, to proceed to New York City, and thence report by letter to the Surgeon-General. S. O. 220, c. s., A. G. O.

KINSMAN, J. H., CAPTAIN AND ASSISTANT-SURGEON.—Relieved from duty in Division of the Atlantic, and ordered to Department of the Gulf. S. O. 224, c. s., A. G. O.

CRONKHITE, H. M., CAPTAIN AND ASSISTANT-SURGEON.—Leave of absence extended one month. S. O. 124, Division of the Pacific and Department of California, October 11, 1877.

VICKERY, R. S., CAPTAIN AND ASSISTANT-SURGEON.—To proceed to Fort Hamilton, N. Y. H., and report for duty. S. O. 246, c. s., Division of the Atlantic.

HEIZMANN, C. L., CAPTAIN AND ASSISTANT-SURGEON.—To proceed to Fort Niagara, N. Y., and report for duty. S. O. 246, c. s., Division of the Atlantic.

KIMBALL, J. P, CAPTAIN AND ASSISTANT-SURGEON.—Assigned to temporary duty at Carlisle Barracks, Pa. S. O. 246, c. s., Division of the Atlantic.

FITZGERALD, J. A., CAPTAIN AND ASSISTANT SURGEON.—Assigned to duty at Fort Boise, Idaho Ty. S. O. 153, Department of the Columbia, October 18, 1877

PATZKI, J. H., CAPTAIN AND ASSISTANT-SURGEON.—Relieved from duty in Department of the Platte, to proceed to New York City, and thence report by letter to the Surgeon-General. S. O. 220, c. s., A. G. O.

ELBREY, F. W., CAPTAIN AND ASSISTANT-SURGEON.—Relieved from temporary duty in Department of the Columbia, and to return to his station in Department of the South. S. O. 224, A. G. O., October 31, 1877.

MATTHEWS, W., CAPTAIN AND ASSISTANT-SURGEON.—Assigned to duty at Camp Bidwell, California. S. O. 128, Division of the Pacific and Department of California, October 20, 1877.

COWDREY, S. G., CAPTAIN AND ASSISTANT-SURGEON.—Relieved from duty in Department of the Gulf, and to report in person to Commanding General, Department of the Platte, for assignment. S. O. 220, c. s., A. G. O.

DICKSON, J. M., CAPTAIN AND ASSISTANT-SURGEON.—Relieved from duty in the Division of the Atlantic, and to report in person to Commanding General, Department of the Columbia, for assignment to duty. S. O. 220, c. s., A. G. O.

MOSELEY, E. B., FIRST-LIEUTENANT AND ASSISTANT-SURGEON.—Relieved from duty in Department of the Gulf, and to report in person to the Commanding General, Department of the Platte, for assignment. S. O. 220, c. s., A. G. O.

SPENCER, W. G., FIRST-LIEUTENANT AND ASSISTANT-SURGEON.—Relieved from duty in Department of the South, to take effect at expiration of his leave of absence, and report in person to Commanding General, Department of the Columbia, for assignment to duty. S. O. 224, c s., A. G. O.

CORBUSIER, W. H., FIRST-LIEUTENANT AND ASSISTANT-SURGEON.—Relieved from duty in Division of the Atlantic, and to report in person to Commanding General, Department of the Platte, for assignment. S. O. 220, c. s., A. G. O.